

**Proposed Amendments to  
the Area Designation Criteria  
and Area Designations  
for State Standards**

**Public Workshop  
October 15, 2003**

# Presentation Outline

- **Designation Process & Criteria**
- **Proposed Criteria Changes**
- **Proposed Area Designation Changes**
- **Recommended Federal PM<sub>2.5</sub> Designations**
- **Comments and Discussion**

# Designation Process

- **ARB adopts State standards to protect public health**
- **Designations are indication of healthfulness of air quality**
- **ARB adopts designation criteria**
- **Designations updated annually, based on most recent data**

# Designation Criteria

- **ARB adopted criteria in 1989**
- **Periodic review of criteria**
- **Revised as needed**

# Affected Pollutants

## ■ Pollutants with State standards in CCR, title 17, section 70200:

Ozone

PM10

Sulfur Dioxide

Lead

Visibility Reducing  
Particles

Carbon Monoxide

Nitrogen Dioxide

Sulfates

Hydrogen Sulfide

New this year: PM2.5

# Designation Categories

- **Nonattainment**
- **Nonattainment-Transitional**
- **Attainment**
- **Unclassified**

# Data to Use

- **“Data for Record”**
  - Meet siting & QA procedures
  - Monitoring by ARB, Districts, and others
- **Time Period**
  - Most recent 3 calendar years

# Appropriate Data

## ■ Representative Data

- Assures individual measurement or statistic reflects averaging time of State standard

## ■ Complete Data

- Assures group of measurements or statistics reflects time of day and season of high concentrations

# Size of Designated Areas

- **Air Basin: Ozone, NO<sub>2</sub>, PM10, Sulfates, and Visibility Reducing Particles**
- **County: CO, SO<sub>2</sub>, Lead, & H<sub>2</sub>S**
- **Smaller areas if justified**

# Exceedance vs. Violation

- Exceedance: Concentration higher than the level of State standard
- Violation: An exceedance not excluded as affected by a “Highly Irregular or Infrequent Event”
- NOT all exceedances are violations

# Highly Irregular or Infrequent Events

- **Beyond reasonable regulatory control**
- **Excluded from designation process**
- **All exceedances remain in data base**
- **Three types of events**

# Highly Irregular or Infrequent Events

- **Extreme Concentration Event**
- **Exceptional Event**
- **Unusual Concentration Event**

# Designation Requirements

- **Nonattainment:**
  - 1 or more violations at any site during the last 3 years
  - Representative data
- **Attainment:**
  - No violations in the last 3 years
  - Representative and complete data
- **Unclassified:**
  - Insufficient data

# Nonattainment-Transitional

## ■ Ozone:

- 3 or fewer exceedances at each site during the last year
- Designated Area = District
- Occurs by “Operation of Law”

## ■ Other Pollutants:

- 2 or fewer violations at each site during the last year
- Expected attainment within 3 years
- Board adopted designation

# Proposed Changes to Designation Criteria

- No change to current way in which designations are made
- Add PM<sub>2.5</sub> to list of pollutants designated by air basin
- Additional changes for clarification

# **New PM<sub>2.5</sub> Designations**

- **Specify geographic area for PM<sub>2.5</sub> designations**
  - **Already included in designation process**
  - **Air basin is default area**
  - **Smaller areas if justified**

# Other Changes

- Clarify how districts located in multiple air basins are designated for ozone nonattainment-transitional
- Clarify procedures in Appendix 1 (Representativeness Criteria) and Appendix 3 (Completeness Criteria)
- Other minor changes for clarification

# **Proposed 2003 Area Designations for State Standards**

- **PM2.5**
- **Ozone**
- **Carbon Monoxide**
- **Sulfates**

# Revisions to State PM and Sulfates Standards

- **June 2002: Board adopted new PM<sub>2.5</sub> annual standard and revised existing PM<sub>10</sub> annual standard**
  - PM<sub>2.5</sub> annual arithmetic mean: 12 µg/m<sup>3</sup>
  - PM<sub>10</sub> annual arithmetic mean: 20 µg/m<sup>3</sup>
- **Board approved expanded list of PM monitors, including continuous monitors**
- **Board modified sulfates standard**

# PM Designation Procedure

- Consider all monitors, analyze data for each monitor separately
- Calculate annual average as average of quarters (similar to federal method)
- Determine data representativeness
- Compare highest representative value to State standard
- Designate areas by air basin unless smaller area justified

# Proposed State PM2.5 Area Designations



# Proposed State PM10 Area Designations



# Ozone

<i>Area / Air Basin</i>	<i>Current Designation</i>	<i>Proposed Designation</i>
San Luis Obispo County (SCCAB)	NA-T	A
Northern Sonoma County (NCAB)	NA-T	A
Butte County (SVAB)	NA-T	N
North Central Coast Air Basin	NA-T	N
Colusa County (SVAB)	N	NA-T
<b>Santa Barbara County (SCCAB)</b>	<b>N</b>	<b>N</b>

A = Attainment

N = Nonattainment

NA-T = Nonattainment-Transitional

# Carbon Monoxide & Sulfates

## ■ Carbon Monoxide

- Los Angeles County (SoCAB)
- Proposed: NA-T

## ■ Sulfates

- Searles Valley Planning Area  
San Bernardino County (MDAB)
- Proposed: Attainment
- Based on App 4: Screening Procedure

# **New Federal PM<sub>2.5</sub> Standards**

- **24-Hour Average: 65  $\mu\text{g}/\text{m}^3$** 
  - **3-year average of yearly 98<sup>th</sup> percentile concentrations**
- **Annual Average: 15.0  $\mu\text{g}/\text{m}^3$** 
  - **3-year average of the annual arithmetic mean concentrations**

# **Federal PM2.5 Standards Implementation**

- **Designation recommendations due to US EPA February 15, 2004**
- **US EPA to issue final designations by December 15, 2004**
- **SIPs due December 2007**
- **Attainment deadlines 2009-2014**

# Proposed Federal PM2.5 Nonattainment Areas



<i>Air District</i>	<i>Design Value (ug/m<sup>3</sup>)</i>	
	<i>24-hour (Std. is 65)</i>	<i>Annual (Std. is 15.0)</i>
San Joaquin Valley	90	23.2
South Coast	73	28.9
Imperial	50	15.6
San Diego	33	16.4

# What's Next?

- **Online information**
  - [www.arb.ca.gov/desig/desig03/desig03.htm](http://www.arb.ca.gov/desig/desig03/desig03.htm)
  - Sign-up for designation listserve
- **Provide us comments/information**
- **Staff Report released December 2003**
- **Board Hearing January 2004**

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# **Comments and Discussion**